

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/295,273 04/20/99 SUMITOMO

N 2927-0103P

002292 DM12/0711
BIRCH STEWART KOLASCH & BIRCH
P O BOX 747
FALLS CHURCH VA 22040-0747

EXAMINER

VARMA, S

ART UNIT

PAPER NUMBER

3711

DATE MAILED:

07/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/295,273

Applicant

Sumitomo et al.

Examiner

Sneh Varma

Group Art Unit
3711



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

- ☒ Claim(s) 1-9 _____ is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-9 _____ is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claims _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☒ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☐ Interview Summary, PTO-413
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 3711

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been placed in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kawamatsu '573 (Kawamatsu).

Kawamatsu discloses a golf club shaft (Figure 1-12; Column 2, lines 37-50) having a plurality of fiber reinforced resinous layers 6a and 6b, which are layered one upon another in a winding state, wherein one or more layers of the layers 6a and 6b, (Figure 2) are inclined fiber reinforced resinous layers in which reinforcing fibers are oriented at angles not 0° and 90° with respect to an axis of the golf club shaft 1, (Figures 1-4) and, at least one layer of the inclined fiber reinforced resinous layers is wound by an unintegral turns more than one turn (see 6a and 6b, Figure 4) so as to apply an anisotropic property to the shaft (see H on layers 6a and 6b, Figure 2;

Art Unit: 3711

Column 2, lines 39-48). Kawamatsu discloses the same structure as claimed, therefore it has the same properties as claimed.

Regarding Claims 1-4, layers 6a and 6b meet the limitation of the claims (Figures 1-12;) showing unintegral turns of the fiber reinforced resinous layers wound by more than one turn is $N+0.5$, where N is an integer more than 1 (Figure 4) and the first fiber reinforced resinous layer and the second fiber reinforced resinous layer are bonded to form one prepreg sheet (Column 2, lines 37-45)

Regarding Claim 3, Kawamatsu discloses that the inclined fiber reinforced resinous layers are a first inclined fiber reinforced resinous layer in which reinforcing fibers are oriented at an angle of $+\alpha$ degree (Figure 2; Column 3, lines 25-36) with respect to an axis of the golf club shaft and a second inclined fiber reinforced resinous layer in which reinforcing fibers are oriented at an angle of $-\alpha$ degree with respect thereto, and the second inclined fiber reinforced resinous layer is adjacently layered on the first inclined fiber reinforced resinous layer in a winding state at one portion, or more, and a winding start position of the first inclined fiber reinforced resinous layer and a winding start position of the second inclined fiber reinforced resinous layer are spaced at 180° (Column 3, lines 53-55) in a circumferential direction of the golf club shaft; and the first inclined fiber reinforced resinous layer and the second inclined fiber reinforced resinous layer are wound by $N+0.5$ turns, respectively where N is an integer more than one (Figure 4).

Art Unit: 3711

Regarding Claims 5-7, Kawamatsu discloses the structure wherein a part of the inclined fiber resinous layer corresponding to decimal turns obtained by subtracting integral turns from the unintegral turns forms an anisotropic region and an angle of the reinforcing fiber of the anisotropic region is different from that of other region in a circumferential direction of the shaft. The same anisotropic property is applied to the Kawamatsu shaft by the anisotropic region, as claimed by the inventor, so that the shaft is twisted by a flexure thereof when the shaft is swung.

Regarding Claims 8-9, Kawamatsu discloses that one or more of the fiber reinforced resinous layers 6c or 6d, have reinforcing fiber whose orientation angle is 90° and/or 0° with respect to the axis of the shaft and that the fiber reinforced resinous layers are composed of prepreg sheets (Column 2, lines 42-45).

Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lo (U. S. Patent 5,380,389) discloses a method for manufacturing the shaft unit of a golf club.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Varma whose telephone number is (703) 308-8335. The examiner can normally be reached on Monday to Friday from 8:00 A.M. - 4:30 P.M.

Art Unit: 3711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jeanette Chapman, can be reached on (703) 308-1310.


The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1078.

July 5, 2000

Sneh Varma, Patent Examiner

Art Unit 3711


JEANETTE CHAPMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700